<u>IN THE SPECIFICATION</u>

Please replace the paragraph at page 10, lines 3-6, with the following rewritten paragraph:

FIG. 8B is a diagram showing the calculation results of the stress distribution in the case where the reduction in the radial direction of the rotary formed body is 15%, being a diagram showing the results ~~or~~ <u>for</u> a comparative example where the entire rotary formed body 31 is modeled and analyzed.

Please replace the paragraph at page 11, lines 15-21, with the following rewritten paragraph:

The data input ~~circuit~~ <u>section</u> 11, as mentioned below, inputs information necessary for the calculation of the velocity field in the model zone of the rotary formed body, such as information on reduction, deformation resistance, and so forth. The velocity field calculation section 12 calculates the velocity field with respect to, for example, the deformation velocity and strain rate. The time integrating section 13 calculates the deformation and strain in the model zone of the rotary formed body according to the calculated velocity field.

Please replace the paragraph at page 13, lines 12-18, with the following rewritten paragraph:

Here, the ring rolling process is a process for producing a toric rotary formed body 31 (refer FIG. 3) by metal forming. For example, as illustrated in FIG. 3 and FIG. 4, a ring-rolling mill 30 according to the present embodiment comprises[[;]] a main roll 32 capable of rotation drive abutted against an outer peripheral surface of the approximate toric plate rotary formed body 31 and a rotatable mandrel roll 33 having a diameter smaller than, for example, the main roll 32, abutted against an inner peripheral surface of the rotary formed body ~~32~~ <u>31</u>.